

ABSTRACT OF THE DISCLOSURE

A semiconductor device includes a low resistance
5 semiconductor substrate, a high resistance semiconductor
layer formed on the substrate, an insulation layer formed on
the semiconductor layer, and a transistor element composed of
a collector region, a base region, and an emitter region formed
in the semiconductor layer. The device further includes an
10 emitter electrode formed in the insulation layer to be
connected to the emitter region, a sub-emitter electrode
formed in the insulation layer connected to the emitter
electrode, a low resistance impurity-diffusion region formed
in the semiconductor layer such that the sub-emitter electrode
15 is connected to the substrate through the impurity-diffusion
region, a base electrode formed in the insulation layer to be
connected to the base region, and a base-bonding pad formed
on the insulation layer to be connected to the base electrode.
The base-bonding pad is placed on the insulation layer above
20 the impurity-diffusion region to be at least partially
encompassed with the impurity-diffusion region.